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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO	
09/833,592	04/13/2001	Yang Ho Moon	2336-063	5640	
759	90 06/19/2002				
Benjamin J. Hauptman LOWE HAUPTMAN GILMAN & BERNER, LLP 1700 Diagonal Road, Suite 310			EXAMINER		
			CUEVAS, PEDRO J		
Alexandria, VA	22314		ART UNIT	PAPER NUMBER	
			2834		
			DATE MAILED: 06/19/2002		

Please find below and/or attached an Office communication concerning this application or proceeding.

•					<u> </u>			
•		Application	No.	Applicant(s)				
Office Action Summary		09/833,592	:	MOON ET AL.				
		Examiner		Art Unit				
		Pedro J. Cu		2834				
 Period for	The MAILING DATE of this communication app Reply	oears on the d	over sheet with the c	orrespondence addre	ess			
A SHOR THE MA - Extension after Si - If the pe - If NO pe - Failure - Any rep	RTENED STATUTORY PERIOD FOR REPLAILING DATE OF THIS COMMUNICATION. ons of time may be available under the provisions of 37 CFR 1.1 (6) MONTHS from the mailing date of this communication. riod for reply specified above is less than thirty (30) days, a replained for reply is specified above, the maximum statutory period to reply within the set or extended period for reply will, by statute y received by the Office later than three months after the mailing patent term adjustment. See 37 CFR 1.704(b).	136(a). In no event ly within the statuto will apply and will a e. cause the applic	, however, may a reply be timely minimum of thirty (30) daysexpire SIX (6) MONTHS from ation to become ABANDONE	nely filed s will be considered timely. the mailing date of this comn D (35 U.S.C. § 133).	nunication.			
1)	Responsive to communication(s) filed on	·						
2a)□	This action is FINAL . 2b)⊠ Th	nis action is n	on-final.					
,—	Since this application is in condition for allow closed in accordance with the practice under n of Claims	ance except Ex parte Qu	for formal matters, pi ayle, 1935 C.D. 11, 4	rosecution as to the r 153 O.G. 213.	nerits is			
4)⊠ C	claim(s) 1-11 is/are pending in the application	n.						
4:	a) Of the above claim(s) is/are withdra	wn from con	sideration.					
5) 🗌 C	claim(s) is/are allowed.							
6)⊠ Claim(s) <u>1-11</u> is/are rejected.								
7) 🗌 C	Claim(s) is/are objected to.							
8)□ 0	Claim(s) are subject to restriction and/o	or election re	quirement.					
Applicatio	n Papers							
	ne specification is objected to by the Examin		_					
10)⊠ TI	ne drawing(s) filed on <u>13 April 2001</u> is/are: a							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).								
11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.								
If approved, corrected drawings are required in reply to this Office action.								
,	ne oath or declaration is objected to by the E	xaminer.						
	nder 35 U.S.C. §§ 119 and 120							
•	Acknowledgment is made of a claim for foreig	gn priority und	der 35 U.S.C. § 119(a	a)-(d) or (f).				
,	All b) Some * c) None of:							
•	1. Certified copies of the priority documents have been received.							
	2. Certified copies of the priority documents have been received in Application No							
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 								
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).								
	☐ The translation of the foreign language p cknowledgment is made of a claim for dome:							
Attachment	(s)							
2) Notice	of References Cited (PTO-892) of Draftsperson's Patent Drawing Review (PTO-948) ation Disclosure Statement(s) (PTO-1449) Paper No(s)	<u>1</u> .	· ==	ry (PTO-413) Paper No(s I Patent Application (PTO				

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,293,986 to Kobayashi et al. in view of U.S. Patent No. 5,920,142 to Onishi et al.

Kobayashi et al. disclose the construction of a quartz crystal oscillator, comprising:

an oscillator main body (125) with a pair of supporting protuberances projecting within it, and a conductive adhesive spread on the supporting protuberances;

a quartz blank (124) consisting of a supporting part for being bonded onto the supporting protuberances across the conductive adhesive; a pair of connecting parts (127, 128) extending from the supporting part; and a pair of bridge parts extending from the pair of the connecting parts respectively;

a cover (126) for being secured upon the quartz blank; and

an insulating layer (131, 132) for pressing down the conductive adhesive between the quartz blank and the supporting protuberances, wherein a width of each of the connecting parts is longer then a width of each of the bridge parts, an inside edge of the Application/Control Number: 09/833,592

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connecting parts is straightly aligned with an inside edge of each of the bridge parts, and an outer edge of each the connecting parts consist of a parallel part which is straightly extended from an outer edge of the supporting part and slant part slants to an outer edge of the bridge parts.

However, it fails to disclose insulating layer composed of elastic resin.

Onishi et al. teach the use of an insulating elastic resin elastic layer (5a) for the purpose of providing a space retainer for forming a sealed space at the functional portion of the ship which can be sealed and have high moisture resistance, and the process of forming the space retainer can be carried out easily.

It would have been obvious to one skilled in the art at the time the invention was made to use the insulating elastic resin elastic layer disclosed by Onishi et al. on the quartz crystal oscillator disclosed by Kobayashi et al. for the purpose of providing a space retainer for forming a sealed space at the functional portion of the ship which can be sealed and have high moisture resistance, and the process of forming the space retainer can be carried out easily.

4. With regards to claims 9 and 10, Kobayashi et al. in view of Onishi et al. disclose the claimed invention except for:

a ratio of a length of the connecting parts to the extended length of bridge parts is 2.5-3.0:1; and

the bridge parts have a width decreased by 1/8- 1/9 compared with a length of the connecting parts.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to a ratio of a length of the connecting parts to the extended length of bridge

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parts is 2.5-3.0: 1; and the bridge parts have a width decreased by 1/8-1/9 compared with a

length of the connecting parts, since it has been held that where the general conditions of a claim

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are disclosed in the prior art, discovering the optimum or workable ranges involves only routine

skill in the art. In re Aller, 105 USPQ 233.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The

examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nestor R. Ramírez can be reached on (703) 308-1371. The fax phone numbers for

the organization where this application or proceeding is assigned are (703) 305-1341 for regular

communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas

June 17, 2002

NESTOR RAMIREZ

SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2800